

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
REQUEST FOR FILING NATIONAL PHASE OF  
PCT APPLICATION UNDER 35 U.S.C. 371 AND 37 CFR 1.494 OR 1.495

To: Asst. Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
(Our Deposit Account No. 03-3975)

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)

Atty Dkt: PM 271464 /11441020/DV/MB  
M# /Client Ref.

From: Pillsbury Madison & Sutro LLP, IP Group: Date: July 7, 2000

This is a **REQUEST** for **FILING** a PCT/USA National Phase Application based on:

1. International Application PCT/CH99/00006 ↑ country code	2. International Filing Date 6 January 1999 Day MONTH Year	3. Earliest Priority Date Claimed 9 January 1998 Day MONTH Year (use item 2 if no earlier priority)
------------------------------------------------------------------	------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------

4. Measured from the earliest priority date in item 3, this PCT/USA National Phase Application Request is being filed within:

(a) ☐ 20 months from above item 3 date (b) ☒ 30 months from above item 3 date,

(c) Therefore, the due date (unextendable) is July 9, 2000

5. Title of Invention TELECOMMUNICATION METHOD

6. Inventor(s) RITTER, Rudolf

Applicant herewith submits the following under 35 U.S.C. 371 to effect filing:

7. ☒ Please immediately start national examination procedures (35 U.S.C. 371 (f)).

8. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2)) is transmitted herewith (file if in English but, if in foreign language, file only if not transmitted to PTO by the International Bureau) including:

a. ☐ Request;

b. ☐ Abstract;

c. \_\_\_\_\_ pgs. Spec. and Claims;

d. \_\_\_\_\_ sheet(s) Drawing which are ☐ informal ☐ formal of size ☐ A4 ☐ 11"

9. ☒ A copy of the International Application has been transmitted by the International Bureau.

10. A translation of the International Application into English (35 U.S.C. 371(c)(2))

a. ☒ is transmitted herewith including: (1) ☒ Request; (2) ☒ Abstract;

(3) 15 pgs. Spec. and Claims;

(4) 4 sheet(s) Drawing which are:

☐ informal ☒ formal of size ☒ A4 ☐ 11"

b. ☐ is not required, as the application was filed in English.

c. ☐ is not herewith, but will be filed when required by the forthcoming PTO Missing Requirements Notice per Rule 494(c) if box 4(a) is X'd or Rule 495(c) if box 4(b) is X'd.

d. ☒ Translation verification attached (not required now).

RE: USA National Filing of PCT/CH99/00006

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11. ☒ **PLEASE AMEND** the specification before its first line by inserting as a separate paragraph:  
 a. ☒ --This application is the national phase of international application PCT/CH99/00006 filed January 6, 1999 which designated the U.S.--  
 b. ☐ --This application also claims the benefit of U.S. Provisional Application No. 60/\_\_\_\_\_, filed \_\_\_\_\_ --
12. ☐ Amendments to the claims of the International Application **under PCT Article 19 (35 U.S.C. 371(c)(3)), i.e., before 18th month from first priority date above in item 3, are transmitted herewith (file only if in English) including:**
13. ☒ PCT Article 19 claim amendments (if any) have been transmitted by the International Bureau
14. ☐ Translation of the amendments to the claims **under PCT Article 19 (35 U.S.C. 371(c)(3)), i.e., of claim amendments made before 18th month, is attached (required by 20th month from the date in item 3 if box 4(a) above is X'd, or 30th month if box 4(b) is X'd, or else amendments will be considered canceled).**
15. **A declaration of the inventor (35 U.S.C. 371(c)(4))**  
 a. ☒ is submitted herewith ☒ Original ☐ Facsimile/Copy  
 b. ☐ is not herewith, but will be filed when required by the forthcoming PTO Missing Requirements Notice per Rule 494(c) if box 4(a) is X'd or Rule 495(c) if box 4(b) is X'd.
16. **An International Search Report (ISR):**  
 a. Was prepared by ☒ European Patent Office ☐ Japanese Patent Office ☐ Other  
 b. ☒ has been transmitted by the international Bureau to PTO.  
 c. ☒ copy herewith (2 pg(s).) ☒ plus Annex of family members (1 pg(s).).
17. **International Preliminary Examination Report (IPER):**  
 a. ☒ has been transmitted (if this letter is filed after 28 months from date in item 3) in English by the International Bureau with Annexes (if any) in original language.  
 b. ☐ copy herewith in English.  
 c.1 ☒ IPER Annex(es) in original language ("Annexes" are amendments made to claims/spec/drawings during Examination) including attached amended:  
 c.2 ☒ Specification/claim pages #2,2a,12,13,14 & 15 claims # 1 - 19  
 Dwg Sheets #  
 d. ☒ Translation of Annex(es) to IPER **(required by 30<sup>th</sup> month due date, or else annexed amendments will be considered canceled).**
18. **Information Disclosure Statement including:**  
 a. ☒ Attached Form PTO-1449 listing documents  
 b. ☐ Attached copies of documents listed on Form PTO-1449  
 c. ☒ A concise explanation of relevance of ISR references is given in the ISR.
19. ☒ **Assignment** document and Cover Sheet for recording are attached. Please mail the recorded assignment document back to the person whose signature, name and address appear at the end of this letter.
20. ☒ Copy of Power to IA agent.
21. ☐ **Drawings** (complete only if 8d or 10a(4) not completed): \_\_\_\_ sheet(s) per set: ☐ 1 set informal;  
☐ Formal of size ☐ A4 ☐ 11"
22. ☐ \_\_\_\_ (No.) **Verified Statement(s)** establishing "small entity" status under Rules 9 & 27
23. **Priority** is hereby claimed under 35 U.S.C. 119/365 based on the priority claim and the certified copy, both filed in the International Application during the international stage based on the filing in (country) SWITZERLAND of:
- |     | <u>Application No.</u> | <u>Filing Date</u>     |     | <u>Application No.</u> | <u>Filing Date</u> |
|-----|------------------------|------------------------|-----|------------------------|--------------------|
| (1) | <u>24/98</u>           | <u>January 9, 1998</u> | (2) | _____                  | _____              |
| (3) | _____                  | _____                  | (4) | _____                  | _____              |
| (5) | _____                  | _____                  | (6) | _____                  | _____              |
- a. ☒ See Form PCT/IB/304 sent to US/DO with copy of priority documents. If copy has not been received, please proceed promptly to obtain same from the IB.  
 b. ☐ Copy of Form PCT/IB/304 attached.

RE: USA National Filing of PCT/CH99/00006

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24. Attached:

25. Preliminary Amendment: ATTACHED

25.5 Per Item 17.c2, **cancel original** pages #\_\_\_\_\_, claims #\_\_\_\_\_, Drawing Sheets #26. **Calculation of the U.S. National Fee (35 U.S.C. 371 (c)(1)) and other fees is as follows:**Based on amended claim(s) per above item(s) ☐ 12, ☐ 14, ☒ 17, ☒ 25, ☐ 25.5 (hilitte)

Total Effective Claims	23	minus 20 =	3	x \$18/\$9	=	\$54	966/967
Independent Claims	2	minus 3 =	0	x \$78/\$39	=	\$0	964/965
If any proper (ignore improper) Multiple Dependent claim is present,				add \$260/\$130	+	260	968/969

BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(4)): →→ **BASIC FEE REQUIRED, NOW** →→→→A. If country code letters in item 1 are **not** "US", "BR", "BB", "TT", "MX", "IL", "NZ", "IN" or "ZA"

See item 16 re:

1. Search Report was <u>not</u> prepared by EPO or JPO -----	add \$970/\$485	960/961
2. Search Report was prepared by EPO or JPO -----	add \$840/\$420	970/971
	<u>+840</u>	

**SKIP B, C, D AND E UNLESS country code letters in item 1 are "US", "BR", "BB", "TT", "MX", "IL", "NZ", "IN" or "ZA"**

→ <input type="checkbox"/> B. If <u>USPTO</u> did not issue <u>both</u> International Search Report (ISR) <u>and</u> (if box 4(b) above is X'd) the International Examination Report (IPER), -----	add \$970/\$485	+0	960/961
→ <input type="checkbox"/> C. If <u>USPTO</u> issued ISR but not IPER (or box 4(a) above is X'd), -----	add \$690/\$345	+0	958/959
→ <input type="checkbox"/> D. If <u>USPTO</u> issued IPER but IPER Sec. V boxes <u>not all</u> 3 YES, -----	add \$670/\$335	+0	956/957
→ <input type="checkbox"/> E. If international preliminary examination fee was paid to <u>USPTO</u> <u>and</u> Rules 492(a)(4) and 496(b) <u>satisfied</u> (IPER Sec. V <u>all</u> 3 boxes YES for <u>all</u> claims), -----	add \$96/\$48	+0	962/963

27. **SUBTOTAL =** \$115428. If Assignment box 19 above is X'd, add Assignment Recording fee of ----\$40 +40 (581)29. Attached is a check to cover the ----- **TOTAL FEES** \$1194

Our Deposit Account No. 03-3975

Our Order No. 60237

C#

271464

M#

**CHARGE STATEMENT:** The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 and 492 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. shown above for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT **does not authorize** charge of the issue fee until/unless an issue fee transmittal form is filedPillsbury Madison & Sutro LLP  
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**NOTE:** File in duplicate with 2 postcard receipts (PAT-103) & attachments.

IN THE UNITED STATES PATENT OFFICE

In re PATENT APPLICATION of

09/582945

RITTER, Rudolf

534 Rec'd PCT/PTC 07 JUL 2000

Atty Dkt.: 271464/11441020/DV/MB

Appln. No.:

Group Art Unit:

Filed: HERewith

Examiner:

Title: TELECOMMUNICATION METHOD

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Date July 7, 2000

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents  
and Trademarks Office  
Washington, D.C. 20231

Sir:

Please amend this application as follows:

Page 2 ( amended ), line 1, before " TV " insert  
-- Unfortunately like the radio or --

IN THE CLAIMS:

Claims 3,4,5,6,8,9,10,11,12 and 13, lines 1 & 2,  
change " one of the preceding claims " to -- claim 1 --  
Claim 17, line 2, change " to 16 " to -- or 15 --

RITTER

Claim 18, line 2, change " to 17 " to -- or 15 --

Claim 19, line 2, change " to 18 " to -- or 15 --

Respectfully submitted,

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By

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**Telecommunication Method**

The present invention relates to a telecommunication method and to a receiving system for carrying out this method. The invention relates in particular  
5 to a telecommunication method which can be utilized on a broadcast channel.

The most widespread broadcast systems are purely monodirectional and therefore have no backward channel by means of which the receiver could send response messages to the sender. That is the case, for example, in most radio and TV broadcast systems. If the receiver, e.g. the radio listener or the  
10 television viewer, would like to react to a program or to a commercial, he must therefore have recourse to some other telecommunications system, e.g. his telephone. If, for example, a product is advertised on television, the interested customer must immediately make a note of the address or telephone number of the supplier and call him later manually. The customer must then identify  
15 himself to the supplier and indicate by telephone the product which interests him. This procedure is extremely complicated and error-prone. For this reason, most broadcast systems are not entirely suitable for prompting the receiver to make spontaneous purchases during or just after a commercial. Moreover, it is difficult to design TV or radio programs in which immediate feedback from the  
20 receiver is needed.

Adding accompanying digital data to a radio or television program is likewise already known. In television systems, digital data can thus be transmitted during the vertical raster interval. An appropriate hardware and software device in the receiver's television set or PC makes it possible to  
25 decode these digital data, to select them, and to store them or display them on the receiver's screen. In radio systems, the transmission of program-accompanying data in addition to the radio programs is used above all with digital radio systems of the DAB (digital audio broadcasting) type. DAB technology makes it possible in this way to transmit both radio programs and  
30 accompanying services (program associated data, PAD). DAB receivers containing a data decoder and a respective display are commercially available.

AA134

TV program channel, this channel for program-accompanying data is only monodirectional.

Broadcast channels having a backward channel whereby digital data are sent between a server and a number of receivers, e.g. by means of a push channel on the Internet, have meanwhile also become known. According to the user's choice and interests, these digital data can then be stored and/or filtered in the user's receiving system. For example, a complete information program can be transmitted to the user, who then decides, for instance, to display or store only the information pertaining to sports articles or politics. With these systems, the receivers can receive a program passively and respond only when, for example, they want more information on a subject or when they want to order a product. As is well known, however, it is difficult to identify users reliably on the Internet, so that this method is not entirely suitable for transmitting confidential or security-sensitive data, such as product or remittance orders, to the sender or to a supplier. Furthermore, the user must have a minimum knowledge of computer technology in order to take advantage of an offer transmitted through a push-channel in the media program. For instance, the user must compose an E-mail message containing his own identification, a description of the product to be ordered, and the identification of the chosen supplier. Hence this method is rather lengthy and troublesome. Moreover, possible errors made by the user or arising through problems with the transmission in the telecommunications network are not easy to locate. The result is a substantial percentage of orders which cannot be carried out because, for instance, the particulars from the user have been entered incompletely or erroneously.

Described in the patent application EP 426 542 A1 is a method for direct marketing via a television network as well as a device for carrying out the method. According to the teaching disclosed in EP 426 542 A1, television receivers are equipped with chip-card readers, and information received from a sender, which contains product identification, is processed in a chip-card inserted into the chip-card reader, information received and user authentication data stored on the chip-card being processed together, and the result of this processing is displayed on the television screen when the television viewer enters a command. To order

2a

a product, the television viewer can communicate the said result to the sender in a delayed way, for example by means of post or telephone, or immediately, for example via a cable network, according to the teaching disclosed in EP 426 542

5 A1.

It is therefore the object of the present invention to provide a telecommunications system which avoids the above-mentioned drawbacks.

This object is attained, according to the invention, by means of a method and a system having the features of the respective independent claims, preferred  
10 embodiments being presented moreover in the dependent claims.

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AMENDED PAGE



By means of the inventive system and method, the receiver can automatically compose and transmit messages not only to the sender, but also to other partners, e.g. to suppliers of advertised products.

5        The invention will be better understood with the aid of the description, given by way of example and illustrated by the figures, whereby:

Fig. 1 shows a schematic view of the system according to the invention;

Fig. 2 shows a schematic view of the structure of the order code transmitted;

10       Fig. 3 shows a screen view generated on the display of the user's receiving system by the inventive Java applet; and

Fig. 4 is a flow chart indicating the various steps carried out upon reception of such an applet in the receiving system.

15       Fig. 1 shows schematically the system components which can be utilized for carrying out the inventive method. The individual elements will now be described in detail:

20       Reference numeral 1 represents a marketing-on-line studio. Here individual order numbers 52 are prepared, packed with Java applets 50 (Java is a registered trademark of Sun Microsystems), and assigned to one or more transmission blocks. These messages will be explained below with reference to Fig. 2.

25       In a transmission studio 2, media programs are prepared and divided into transmission blocks. A transmission block may, for instance, correspond to an advertisement, a piece of music, a radio play, a commercial, a film, a Web site, etc. The transmission studio may, for example, be a radio studio, a TV studio,

or an Internet server.

Transmitted transmission blocks 4 are combined at 6 with assigned messages 5 and sent out over a broadcast channel 7. Depending upon the application, broadcast channel 7 may, for example, be an FM broadcasting network, a TV broadcasting network, or an Internet push channel. Alternatively, the transmission blocks 4, e.g. advertising messages, and the respective messages 5 may also be sent out over a conventional mobile communication network 8, as indicated by arrow 15.

10

The transmitted media program is received by a receiving system 9 according to the present invention. The receiving system 9 may, for example, be a mobile telecommunications device having an integrated radio receiver. With this system, the user may telephone quite conventionally over a mobile radio network 8, e.g. a GSM network, or use it as a conventional FM receiver instead, e.g. to listen to radio programs by means of headphones 95. In a modification, the receiving system has a television receiver instead of or in addition to the radio receiver for viewing television programs on a display 90 of the mobile apparatus. Mobile radio apparatus provided with an adequate screen, e.g. for video telephone applications, are commercially available; one skilled in the art can easily integrate a TV tuner in such a mobile videophone apparatus so that television can also be viewed with this system. The mobile radio functions and the radio or TV functions can be operated individually or in combination. In the case of individual operation, the radio or TV receiver can be operated like a conventional individual apparatus. In the case of combined operation, the FM radio or TV receiver is operative, and the mobile radio component is on standby or in communication mode. By means of a special key 92, the user, upon receiving an interesting message, can activate the execution of the applet 5 and the screen display shown in Fig. 3.

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The receiving system 9 may also consist of a radio and/or TV receiver with additional mobile radio communication components integrated in the

housing. It is equally possible to integrate the mobile radio components in a remote control for a television set or for some other broadcast receiver.

Furthermore, the receiving system may also consist of a computer, e.g. a PC or a palmtop, with integrated reception means for radio, TV, and/or Internet, as well as communication means for a mobile radio network 8. As will be explained below, however, the inventive method can also be carried out with a conventional mobile radio device 9, e.g. a GSM terminal.

The receiving system 9 preferably contains in addition means known per se for sending and receiving SMS (short message system) and/or USSD (unstructured supplementary service data) short messages, as well as filter means known per se for recognizing and temporarily storing special short messages, preferably according to the SICAP method described, among other things, in European Patent No. 0 689 368. Encryption and signature means are preferably present as well in order to decode short messages received and to encode and sign short messages to be sent out. The TTP method may be utilized as an encryption method, for example, or else decryption means functioning according to a point-to-point method.

The receiving system 9 can further transmit a short message having an order number to a server 13 over the mobile radio network 8. The server 13 combines the received order number with user identification data from a subscriber data base 11. These user identification data contain at least the full name and address of the subscriber. The user identification data preferably also contain the user's language, his bank connection and/or credit card company, subscribed services, etc. The subscriber data base 11 is preferably the data base of the operator of the telecommunications network 8 for administering the subscribers. Its contents are therefore extremely reliable in principle. It may also contain a temporary address of the subscriber. In a modification, the subscriber data base contains the user identification data only of users who have subscribed to the inventive system.

The receiving system 9 contains user identification means, preferably chip-card reading means, for identifying the user of the receiving system by means of an identification card. Such chip-card reading means are customary, among other things, in GSM mobile apparatus provided with SIM (subscriber  
 5 identification module) cards. However, other identification cards, e.g. cards known by the name of OpenCard, may also be used, depending upon the receiving system.

The server 13 then combines at least some of the information contained  
 10 in the short message entered by the user with the user identifications in order to complete the identification of the user not fully transmitted.

The server 13 is connected to a product/information supplier data base  
 10. It is via this data base that the functions of the system are controlled. It  
 15 preferably newly contains a user profile. The data combined in the server 13 are sent by means of this data base to the logistics center 12 of the respective supplier, who then delivers the ordered products or information to the user 16.

A data warehouse server 14 analyzes the messages received from the  
 20 user 9 <sic. 16> and hence draws up user profiles which allow marketing at the point-to-point level. The users may then load a user profile or a group of offered profiles on their identification card 94 so that they can also be directly addressed in the broadcast process.

25 The user may also order a profile for himself and have it assigned to him, e.g. by means of a special order message or on line by means of a computer.

The process which takes place in the elements 9 to 14 is described in more detail in the patent application PCT/CH96/00464, the contents of which are incorporated here.

Fig. 2 shows the structure of the message 5. The order number 52 itself is packed together with the respective Java code 50. This Java applet is received by the SIM card 94 in the mobile apparatus 9, having Java capability, which consequently carries out an interactive process with the user. The Java code 50 is transmitted only between the sender 1 and the mobile apparatus so that this interactive process takes place between the SIM card 9 <*sic.* 94> having Java capability and the user, but not between the mobile apparatus 9 and the server 13. Instead of Java, the applets may naturally also be written in some other object-oriented computer language.

The message 5 further comprises a user profile 510 drawn up in the studio 1, by means of which profile the data of interest to the user are filtered in the SIM card 94. For example, when the invention is utilized for securities trading, the user profile may, for instance, correspond to a segment of securities in an automatic trading system. The data-processing means in the SIM card 9 <*sic.* 94> can then automatically prepare a short message for the server 13 if buying or selling signals occur. The user then has the option of carrying out a respective process.

The user profile may be drawn up in the data warehouse 14 by the user himself or by combination. By means of a personal user profile, it becomes possible to indicate to a user the specific products in which he is really interested.

For example, the user may send a short message asking the logistics center 12 for a list of profiles and detail segments, which is displayed on his screen 90. Alternatively, a user profile may also be ordered on line with a PC or other computer. The user profile ordered is, for instance, stored in a user profile table in the secured area of the SIM card 94 and is used for selecting applets containing the information of interest. The user profile table can preferably not be modified by the user directly via the mobile apparatus.

Field 525 contains only a designator F for the order number 52. Fields 526, 527, and 528 contain separators. Field 521 contains a product supplier indication for the product or information offered. This designator preferably consists of a predefined abbreviation of the supplier's name. In order for the user to be able to understand this abbreviation, the supplier's full name is preferably transmitted as well as a link file (500) in the applet 50.

Field 522 contains the product identification, e.g. a product number. The product offered preferably corresponds to the transmission block 4 sent out simultaneously. For instance, if a piece of music is broadcast on the FM channel, various products pertaining to that piece of music may be offered simultaneously on the data channel or on DAB as an option in a menu, e.g. for ordering a CD, or sheet music, or tickets to a concert, etc. This mechanism controlled by the studio 1 may also be designed dynamically.

In addition to the product number 522, a link file 501 to one or more product identifications 502, 502', etc. in plain text and in several languages is preferably transmitted in the applet 50 and, if need be, displayed on the screen 90. The product identification is preferably provided with a language flag 503, 503', etc. This makes it possible for the product name to be set to the user's language by means of the language flag on the user-specific Java SIM card.

Field 523 (CS) contains a check sum or a parity sum in order to catch any errors in field 52. If such an error occurs at the level of the server 13, the user is prompted to repeat his entry.

The check sum is established by means of any known error-checking or error-correction algorithm from field 521 and 522. For example, a parity-check algorithm may be used for establishing the value of the check sum 523. The number of characters in the check sum depends upon the algorithm used and

on the maximum accepted error quota.

Finally, field 524 contains an indication concerning the desired transaction. This process can be controlled interactively by the user to enter  
 5 whether he would like to order a product (ORDER) or whether he would just like to ask for information, for instance. If the receiving system is also linked to the Internet, a code W may also be entered in order to set the apparatus directly to a corresponding Web page. By means of a terminal identification IMEI in the receiving system, the Java applet can recognize whether the system has  
 10 access to the Internet and whether the W option code must also be offered.

Furthermore, by means of options in field 524, the desired product quantity (M) and the preferred mode of payment (Z) can be selected.

15 This division of information in the short-message order is given only by way of example, for other ways of dividing it are quite conceivable. Moreover, the various data fields may be mixed, encrypted, and/or signed in order to guarantee confidentiality. The information may also be divided up into different short messages sent in succession.

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Fig. 3 shows diagrammatically the screen 90 during execution of a message which has passed through the filter. In this example, the whole order number 52 is interactively depicted. Under the abbreviated supplier designator 521, the full supplier identification 500 is displayed. Using a cursor 900, the  
 25 user can choose one of a number of products 522, 522', 522", ... in a list box in area 901. The name of the chosen product is permanently shown in plain text in field 502. Similarly, the Java applet permits selection of the transaction possibilities (order or information), the desired quantity (M), and the mode of payment (Z) by means of a menu, the chosen option always being explained in  
 30 plain text in the text area 902 of the screen.

The sequence of operations will now be described in detail. In the case of a mobile apparatus combined with a radio receiver, advertising programs, music, news, etc., are sent out on the broadcast channel 7. At the same time, the order number 52, preferably packed with applet 50, is also sent out on the available data channel. If an offer or a piece of music appeals to the user, he can press the F-key 92 in order to activate the execution of the applet and the screen display of Fig. 3. With the cursor, the user can then pick out an operation, e.g. from the list boxes, and in this way enter a command; depending upon the supplier, only a single option, e.g. a single product which can be ordered, may be displayed instead.

If the user selects a transaction code which does not relate just to information, an interactive process preferably follows so that the user's authenticity can be ensured. This process may take place directly on the card 94, e.g. by means of TTP (trusted third party) or PTP (point-to-point) resources on the card, or interactively in a security server (not shown).

In the case of a mobile apparatus combined with a television receiver or a multifunctional computer, the sequence of operations is analogous. In that case, however, the receiving system may also be linked to the Internet and display Web pages. The system may thereby be set directly to the respective Web page.

The inventive method may also be used with ordinary mobile apparatus which do not contain any additional broadcast channel receivers, as already indicated by arrow 15 in Fig. 1. In that case, messages are sent out from a central office 2 to several or all users over the normal mobile radio network 8 in the broadcast method. In this modification, it is advisable to work with user profiles so that the information reaches only those users who are interested in it or those who have subscribed to a respective service.



The method implemented in the receiving system 9 upon receipt of a message 5 will now be described with reference to Fig. 4.

5 The receiving system has receiving means for receiving a media program sent out over a broadcast channel and program-accompanying data, and reproduction means for playing the received media program back to the user. The receiving system can thereby receive transmitted messages 5 and applets 50 as program-accompanying data (step 20).

10 The messages 5 received are then evaluated, this evaluation taking place even when the mobile radio part of the receiving system is switched off or in standby mode. If a message with an order number 52 is received (designated by the designator 525), the user profile is evaluated (test 21). If the order number received does not correspond to any customer profile, the  
15 process is terminated (step 23); otherwise, this code is further processed. If the mobile apparatus is switched on (test 24), the applet 50 is directly displayed on the display 90 (step 25). The user may then, for example, order products or ask for information, as described above (step 29).

If, on the contrary, the mobile apparatus is switched off, the message 5  
20 received or just the applet 50 is filed in a buffer (not shown) on the SIM card 94 or in the receiving system 9 (step 26). Only later, when the mobile apparatus is switched on (27), is the applet 50 executed and the information displayed (step 28), so that the user may order products or ask for information (step 29).

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### Claims

1. Telecommunication method comprising the following steps:

receiving by means of a suitable telecommunications mobile device (9),  
which contains a radio receiver and/or a television receiver, digital data (5) sent  
5 out over a broadcast channel (7, 8), which data are transmitted as program-  
accompanying data (5) in a media program (4), the telecommunications mobile  
device including an identification (94) card by which the user of the  
telecommunications mobile device (9) is identified,

10 displaying information, corresponding to the received digital data, on a  
display (90) of the telecommunications mobile device (9),

entering of a command by the user,

preparing a message corresponding to the entered command, the  
prepared message including at least one data field (521, 522, 524) from the  
digital data (5) received and an identification of the user determined from the  
15 identification card,

sending the prepared message over a mobile radio network (8).

2. Telecommunication method in accordance with claim 1, wherein said  
media program (4) is reproduced by the telecommunications mobile device (9).

20 3. Telecommunication method in accordance with one of the preceding  
claims, wherein the displayed information contains at least one menu from  
which a command can be selected.

4. Telecommunication method in accordance with one of the preceding  
claims, wherein the digital data can contain applets (50) which are executed by

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the telecommunications mobile device (9).

5 5. Telecommunication method in accordance with one of the preceding claims, wherein, when the components needed for processing and displaying these data are switched off, the digital data received are temporarily stored in a buffer and not processed until these components are switched on.

6. Telecommunication method in accordance with one of the preceding claims, wherein the digital data received are packed in messages (5) which are first evaluated in order to determine whether they must be displayed.

10 7. Telecommunication method in accordance with claim 6, wherein the received messages (5) which are not of interest to the user are sorted out with the aid of a user profile stored in the memory of the telecommunications mobile device (9).

8. Telecommunication method in accordance with one of the preceding claims, wherein the digital data (5) are transmitted in a radio channel (7).

15 9. Telecommunication method in accordance with one of the preceding claims, wherein the digital data (5) are transmitted in a TV channel (7).

10. Telecommunication method in accordance with one of the preceding claims, wherein the prepared message is a SMS message.

20 11. Telecommunication method in accordance with one of the preceding claims, wherein the prepared message is a USSD message.

12. Telecommunication method in accordance with one of the preceding claims, wherein the prepared message is signed.

13. Telecommunication method in accordance with one of the

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preceding claims, wherein the prepared message is encrypted.

14. Telecommunications mobile device (9) comprising mobile radio components by means of which the telecommunications mobile device (9) can be utilized in a mobile radio network (8), and which telecommunications mobile  
 5 device (9) comprises an identification card (94) in order to identify the user of the telecommunications mobile device (9), wherein it further comprises:

a radio receiver and/or a television receiver for receiving a media program (4), sent out over a broadcast channel (7), and program-accompanying data (5),

10 reproducing means (90, 95) for playing back to the user the media program received,

message-preparing means for preparing and sending over the mobile radio network (8) messages including at least one data field (521, 522, 524) from the program-accompanying data (5) and an identification of the user.

15 15. Telecommunications mobile device (9) in accordance with claim 14, wherein the mobile radio components comprise a GSM mobile device.

16. Telecommunications mobile device (9) in accordance with one of the claims 14 or 15, wherein the identification card is a SIM card (94) capable of executing the applets (50) transmitted in the program-accompanying data  
 20 (5).

17. Telecommunications mobile device (9) in accordance with one of the claims 14 to 16, wherein the message-preparing means are capable of preparing and sending SMS messages.

18. Telecommunications mobile device (9) in accordance with one of  
 25 the claims 14 to 17, wherein the message-preparing means are capable of

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preparing and sending USSD messages.

19. Telecommunications mobile device (9) in accordance with one of the claims 14 to 18, further comprising a key (92) for causing information, corresponding to the digital data received, to be displayed on a display (90) of the telecommunications mobile device (9).

10

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### Abstract

Telecommunication method, comprising the following steps:

integrating program-accompanying digital data in a TV or radio program  
 5 and transmitting this program;

reception and reproduction of this program by a mobile radio device  
 combined with a TV and/or radio receiving system, the receiving system  
 comprising a chip-card reader into which the user of the receiving system can  
 insert a SIM card to identify himself;

10 displaying at least one option corresponding to the integrated digital data  
 on a display of the receiving system and selection of an option by the user of  
 the receiving system;

preparation by the SIM card of a message corresponding to the selected  
 option, the prepared message comprising at least one data field from the digital  
 15 data received;

transmitting said message to a server over a bidirectional mobile radio  
 network;

automatic user recognition by the server, the user recognition using  
 information stored in the identification card and transmitted over the  
 20 bidirectional telecommunications network;

combining at least some of the data received with user-specific data.

(Fig. 1)

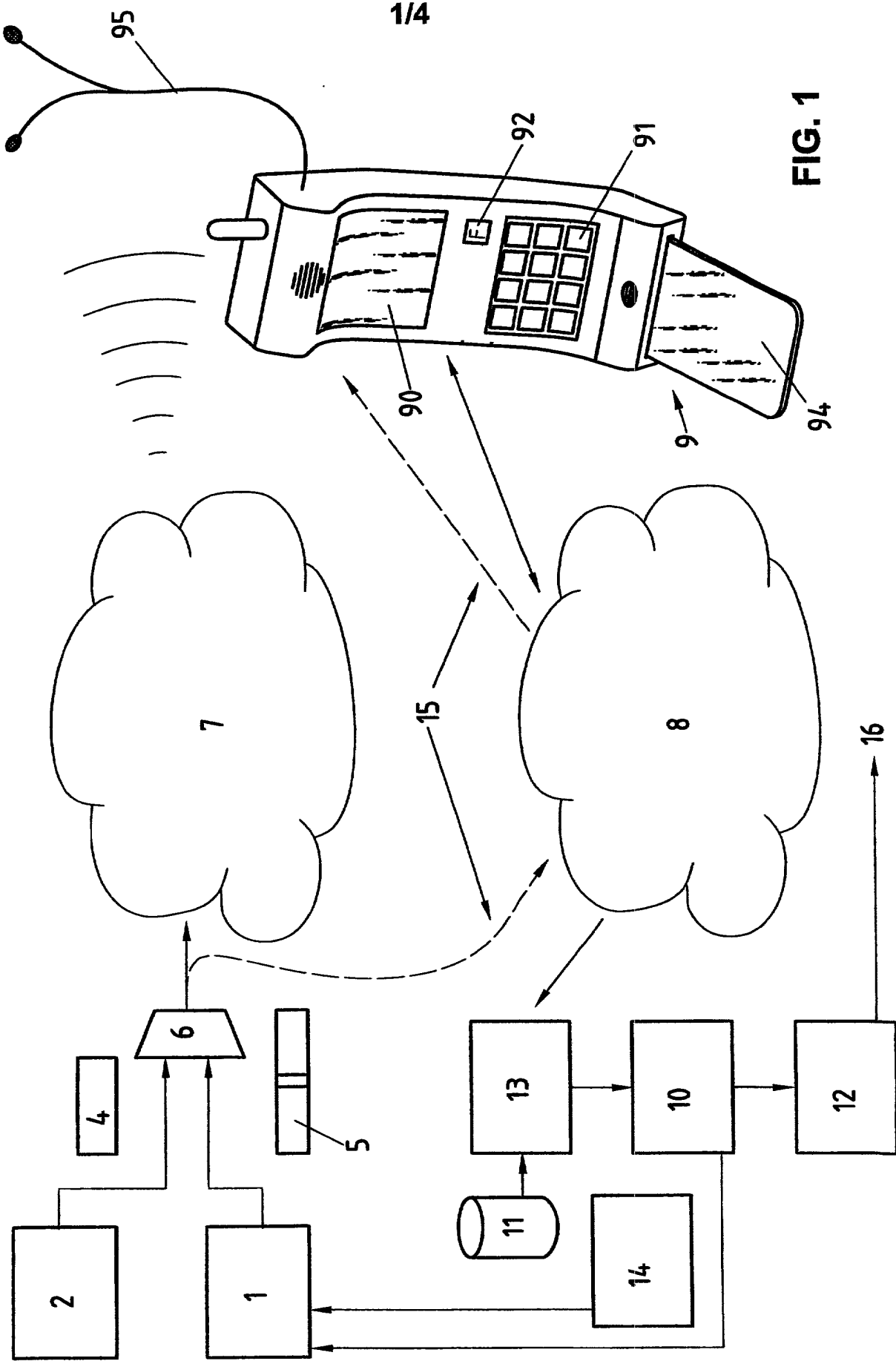


FIG. 1





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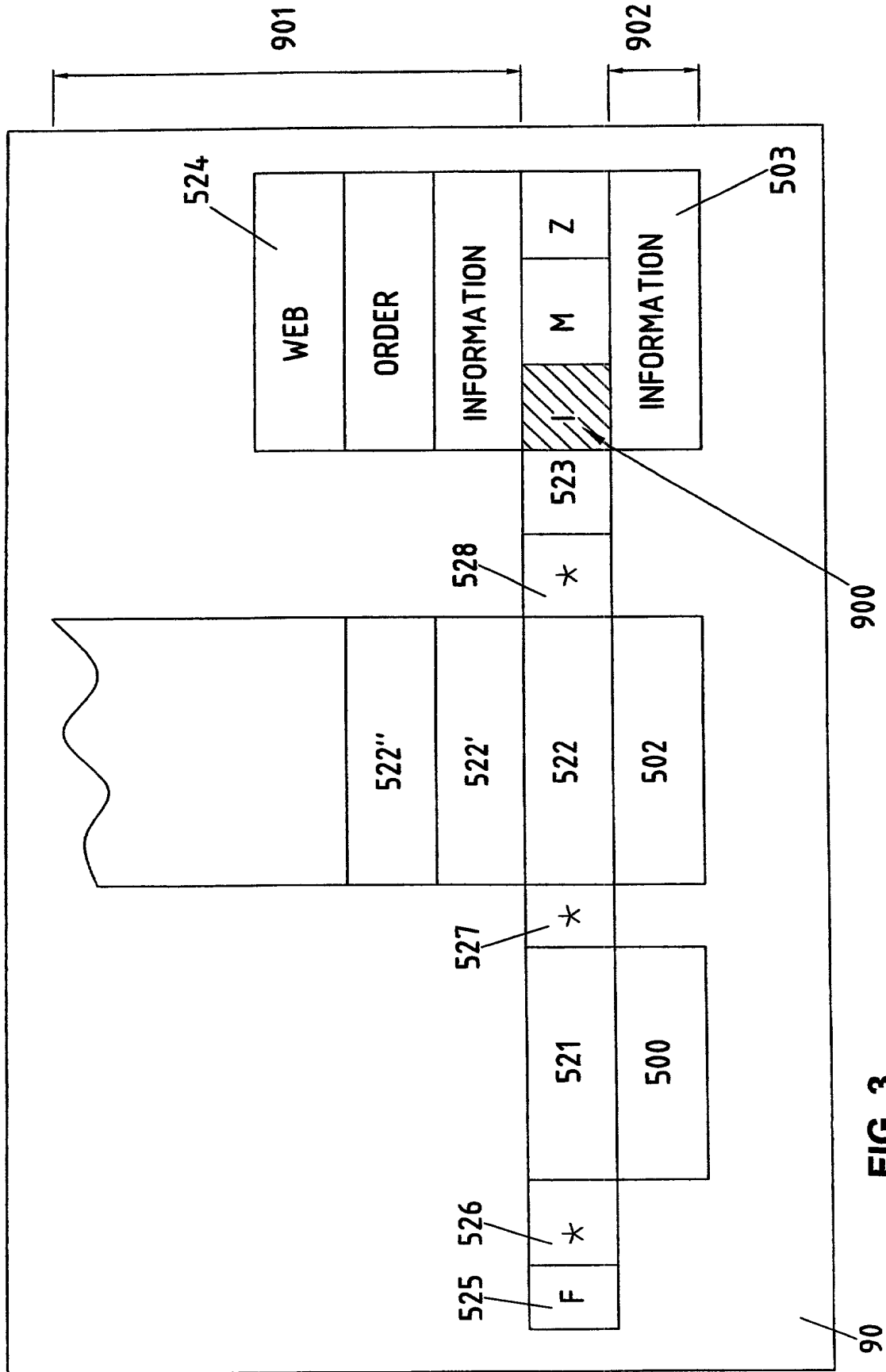


FIG. 3

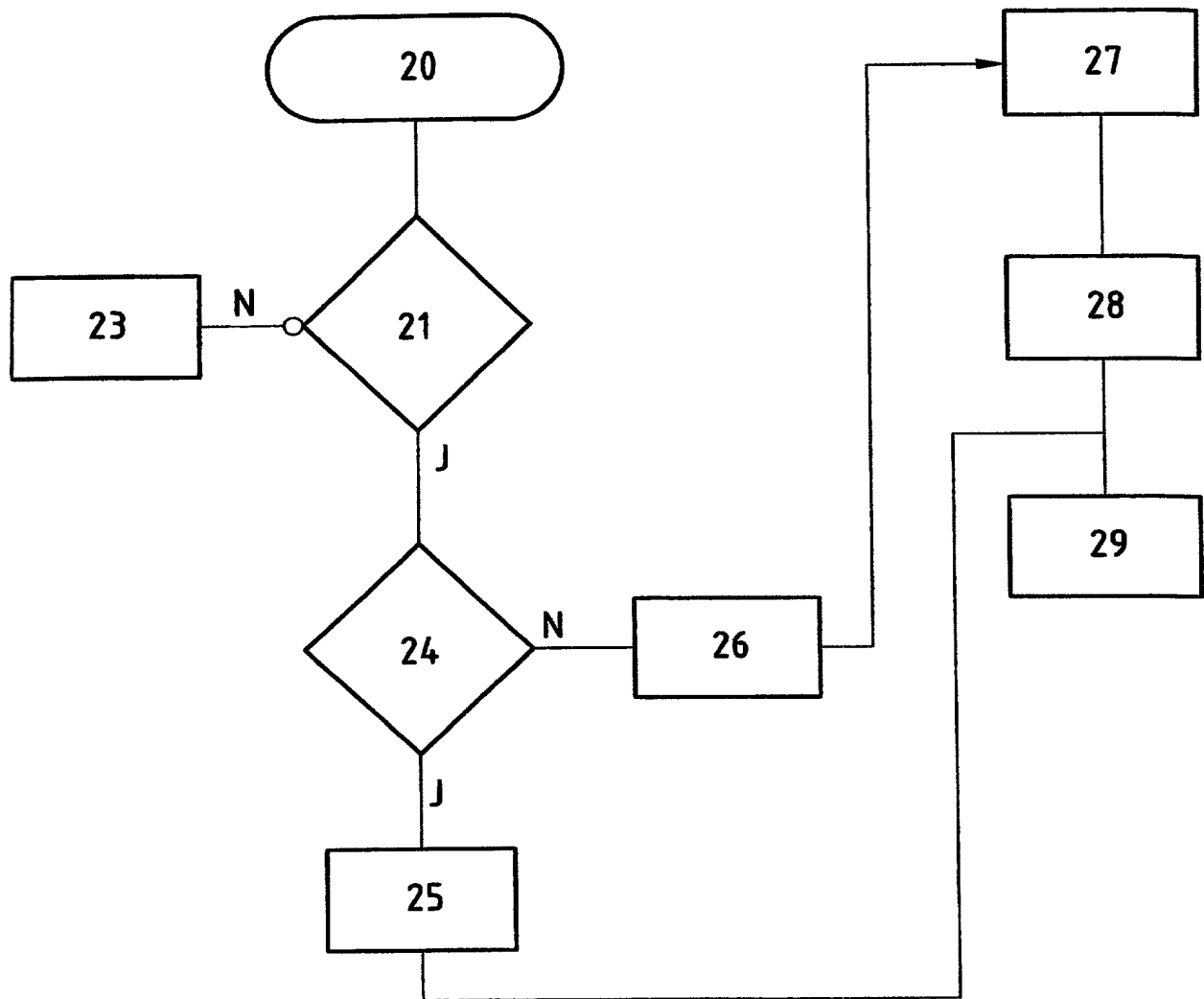


FIG. 4

FOR UTILITY/DESIGN  
CIP/PCT NATIONAL/PLANT  
ORIGINAL/SUBSTITUTE/SUPPLEMENTAL  
DECLARATIONS

RULE 63 (37 C.F.R. 1.63)  
DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATION  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PM&S  
FORM

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the INVENTION ENTITLED

Telecommunication Method

the specification of which (CHECK applicable BOX(ES))

X -> XX is attached hereto.

BOX(ES) -> [ ] was filed on \_\_\_\_\_ as U.S. Application No. 0 / \_\_\_\_\_

-> XX was filed as PCT International Application No. PCT/CH 99/00006 on 6 January 1999

-> and (if U.S. or PCT application amended) was amended on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing date of this application:

PRIOR FOREIGN APPLICATION(S)		Date first Laid-	Date Patented	Priority Claimed		
Number	Country	Day/MONTH/Year Filed	open or Published	or Granted	Yes	No
24/98	Switzerland	09.01.1998			YES	

I hereby claim domestic priority benefit under 35 U.S.C. 119/120/365 of the indicated United States applications listed below and PCT international applications listed above or below and, if this is a continuation-in-part (CIP) application, insofar as the subject matter disclosed and claimed in this application is in addition to that disclosed in such prior applications, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of each such prior application and the national or PCT international filing date of this application:

PRIOR U.S. PROVISIONAL, NONPROVISIONAL AND/OR PCT APPLICATION(S)		Status	Priority Claimed	
Application No. (series code/serial no.)	Day/MONTH/Year Filed	pending, abandoned, patented	Yes	No

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint Pillsbury Madison & Sutro LLP, Intellectual Property Group, 1100 New York Avenue, N.W., Ninth Floor, East Tower, Washington, D.C. 20005-3918, telephone number (202) 861-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to delete names/numbers below of persons no longer with their firm and to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct the above Firm and/or a below attorney in writing to the contrary.

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